ENGLAND GCSE CHEMISTRY OCR TWENTY FIRST CENTURY FOUNDATION · UNIT 1 · 25 QUESTIONS

Air and Water — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button so it can be fixed.

1 **A swimming pool holds water. Why does a person float in the pool?**

- A their density is close to water
- B they are made of air
- C they are heavier than water and sink
- D the water pushes them down

Understand It with Pulse | Flag a mistake

2 **A river flows to the sea. What is this part of?**

- A the nitrogen cycle
- B the carbon cycle
- C the rock cycle
- D the water cycle

Understand It with Pulse | Flag a mistake

3 **A sunflower turns its head to follow the Sun. What is this a response to?**

- A gravity
- B touch
- C water
- D light

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4 **A cup of coffee cools down. Energy is transferred to the surroundings. What type of change is this?**

- A an energy transfer
- B a neutralisation
- C a chemical change
- D a reversible reaction

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5 **An ice cream cone melts. What is the melting point of the ice cream?**

A around minus 20 degrees Celsius

B around 37 degrees Celsius

C around 100 degrees Celsius

D around 0 degrees Celsius

Understand It with Pulse | Flag a mistake

6 **A forest is cut down. What happens to the carbon stored in the trees?**

A it is released

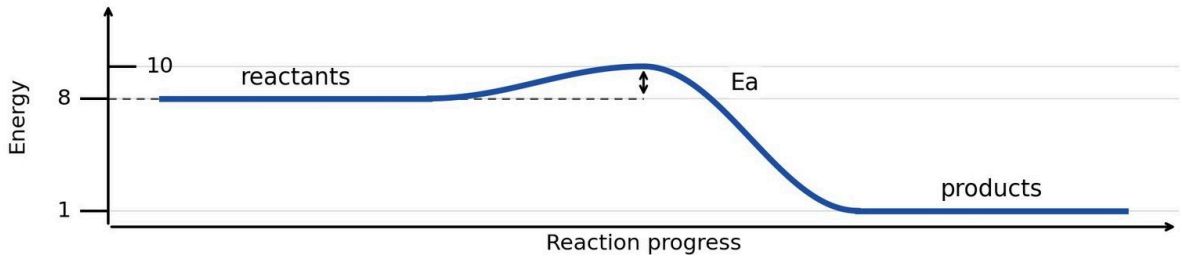
B it turns to oxygen

C it disappears

D it is stored forever

Understand It with Pulse | Flag a mistake

7 **The diagram shows the energy profile for a reaction. The reactants are at energy 8 and the products are at 1. Is the reaction exothermic or endothermic?**



A endothermic, energy is given out

B endothermic, energy is taken in

C exothermic, energy is taken in

D exothermic, energy is given out

Understand It with Pulse | Flag a mistake

8 **Why are nitrogen oxides a problem?**

A they cause acid rain and smog

B they poison drinking water fast

C they warm the Earth directly

D they damage the ozone layer

Understand It with Pulse | Flag a mistake

9 **About what percentage of the air is nitrogen?**

A 0.04%

B 1%

C 21%

D 78%

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10 **Which human activity releases methane?**

A planting trees

B farming cattle

C burning coal

D driving electric cars

Understand It with Pulse | Flag a mistake

11 **Nitrogen is 78 percent of the air. How much nitrogen is there in 1000 litres of air?**

A 780 L

B 790 L

C 770 L

D 1560 L

Understand It with Pulse | Flag a mistake

12 **How do scientists know carbon dioxide levels are rising?**

A they count the trees

B they weigh the oceans

C they measure the air

D they measure the sunlight

Understand It with Pulse | Flag a mistake

13 **Why is chlorine added to drinking water?**

A to kill bacteria

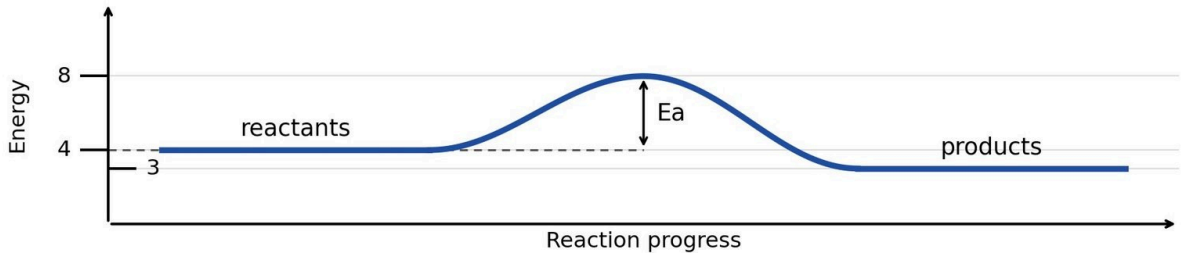
B to remove solids

C to add fluoride

D to make it taste better

Understand It with Pulse | Flag a mistake

14 **The diagram shows the energy profile for a reaction. The reactants are at energy 4, the peak is at 8 and the products are at 3. What is the activation energy?**



A 5

B 1

C 12

D 4

Understand It with Pulse | Flag a mistake

15 **What damages the ozone layer?**

- A nitrogen
- B CFCs
- C oxygen
- D carbon dioxide

Understand It with Pulse | Flag a mistake

16 **A factory emits 10 tonnes of carbon dioxide per day. How much does it emit in one week?**

- A 70 tonnes
- B 60 tonnes
- C 80 tonnes
- D 140 tonnes

Understand It with Pulse | Flag a mistake

17 **What is sedimentation in water treatment?**

A solids settling to the bottom

B chemicals dissolving in the water

C water boiling to make steam

D solids floating to the top

Understand It with Pulse | Flag a mistake

18 **Oxygen is 21 percent of the air. How much oxygen is there in 500 litres of air?**

A 105 L

B 115 L

C 210 L

D 95 L

Understand It with Pulse | Flag a mistake

19 **How do humans increase carbon dioxide?**

A by planting trees

B by using solar power to make electricity

C by recycling waste

D by burning fossil fuels

Understand It with Pulse | Flag a mistake

20 **Where did the water in the oceans come from?**

A rain from the clouds in the sky

B ice melting at the poles

C rivers flowing from the land

D water vapour from volcanoes

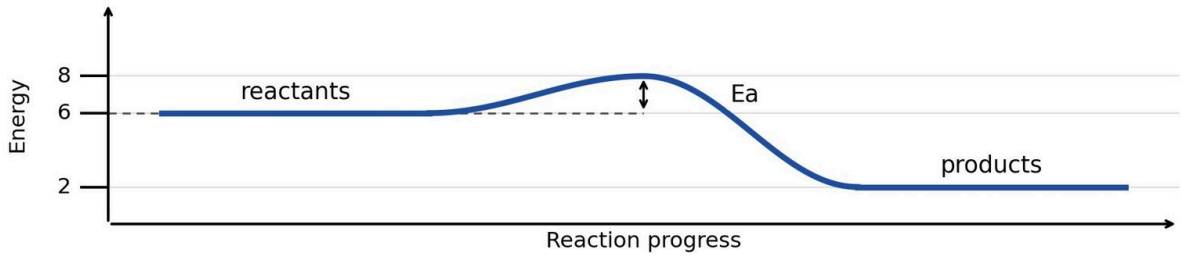
Understand It with Pulse | Flag a mistake

21 **What happens to the temperature during an exothermic reaction?**

- **A** it rises
- **B** it falls
- **C** it stays the same
- **D** it falls then rises

Understand It with Pulse **Flag a mistake**

22 **The diagram shows the energy profile for a reaction. The reactants are at energy 6 and the products are at 2. Is the reaction exothermic or endothermic?**



A exothermic, energy is given out

B endothermic, energy is taken in

C endothermic, energy is given out

D exothermic, energy is taken in

Understand It with Pulse | Flag a mistake

23 **Where do particulates in the air come from?**

- A burning fuels and dust
- B evaporation from the sea
- C rain falling from clouds
- D photosynthesis in plants

Understand It with Pulse | Flag a mistake

24 **How do greenhouse gases warm the Earth?**

- A they trap oxygen in the air
- B they absorb infrared radiation
- C they reflect sunlight back down
- D they stop the Sun from shining

Understand It with Pulse | Flag a mistake

25 **What is one effect of climate change on weather?**

A colder summers everywhere

B weather stays the same

C more extreme weather

D less rain everywhere

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. A
2. D
3. D
4. A
5. D
6. A
7. D
8. A
9. D
10. B
11. A
12. C
13. A
14. D
15. B
16. A
17. A
18. A
19. D
20. D
21. A
22. A
23. A
24. B
25. C

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